

**WASHINGTON STATE ADMINISTRATIVE
OFFICE OF THE COURTS (AOC)**

USABILITY REQUIREMENTS

Background

Discount usability engineering or Guerrilla HCI stresses the following characteristics: prototyping, early user involvement, prioritizing functionality and attention to scenarios and workflow. These same characteristics are deeply embedded in AOC's new software development process. Thus, AOC does not need to impose a separate structure onto the overall process that adds significant expense and complexity. AOC needs to:

1. Formalize a standard process for conducting usability testing and integrating it into the new software development process.
2. Identify staff roles and organizational resources to carry out usability testing.
3. Ensure process rigor by using appropriate metrics.

Formalization

The standard on the following page meets this requirement.

Staffing

JIS Education Services' staff will be trained to conduct "Thinking Out Loud Scenario Tests" and "Heuristic Evaluations". These skills integrate well with the unit's existing project team roles of interface designers, help designers and application trainers.

Metrics

The most important metric is a simple count of the number of usability problems. If nothing else, that forces AOC to do something to collect the data and keep the data in a database. The second metric is severity ratings. The third measure is not strictly a metric, but prioritizing the benefits of fixing each usability problem does provide useful information to the project manager and users.

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Application Architectural Standard

All new projects must comply with the AOC usability requirements.

Usability Testing Standard

1. Usability testing will be performed for each external prototype or release.
2. Usability tests will be conducted with at least three users.
3. A "Thinking Out Loud Scenario Test" will be conducted for each major use case.
4. A "Heuristic Evaluation" will be conducted for all user interface screens.
5. Usability problems discovered during heuristic evaluations will be rated by severity, based on the following factors:
 - frequency
 - impact
 - persistence
6. Usability problems rated for severity will then be prioritized for correction, based on the following benefits:
 - reduction in learning time
 - faster performance
 - fewer errors
 - higher subjective satisfaction

Thinking Out Loud Scenario Test

1. Each test will include an evaluator (user) and an observer.
2. The evaluator will move through the use case, based on a prepared script.
3. The evaluator will comment on the process as they proceed.
4. The observer will take notes on the comments.
5. Evaluators must perform the test independently from other evaluators.
6. Observers may assist evaluators when requested.
7. Tests may be conducted with paper mockups or simple prototyping environments.
8. Observers will conduct a feedback session with evaluators after summarizing the notes.
9. Observers will summarize the problems in a usability problem database.
10. Observers and evaluators will brief the project technical staff on the usability problems documented in the database.

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Heuristic Evaluation

1. Evaluators (users) must be trained in the [10 usability heuristics/principles](#).
2. Evaluators must perform the evaluation independently.
3. Evaluators will perform the evaluation for all screens.
4. Evaluators will describe each usability problem and identify which of the usability principles is violated.
5. Evaluators will rate the severity of usability problems after the evaluation sessions, using a questionnaire describing the complete set of usability problems discovered.
6. Severity ratings will be calculated as the mean of the evaluator ratings.
7. Project staff will conduct a feedback session with evaluators after summarizing the mean severity ratings.
8. Project usability staff will summarize the problems in a usability problem database.
9. Project usability staff and evaluators will brief the project technical staff on the usability problems documented in the database.